

REMARKS

Claims 1-16 are pending. Claims 1-16 are rejected.

Claims 1-4, 6-10, and 12-14 are rejected under 35 U.S.C. §103 (a) as being unpatentable over Hansen et al. (6,340,411) in view of Cook (5,552,740) and further in view of Neogi (US 2003/0208859).

Claims 1-5, 14-15 are rejected under 35 U.S.C. §103 (a) as being unpatentable over Hansen et al. (6,340,411) in view of Cook et al (5,552,740) and Neogi et al. (US 2003/0208859) as applied to Claim 1 and further in view of Smith et al. (US 2002/0090511).

Claims 11 is rejected under 35 U.S.C. §103 (a) as being unpatentable over Hansen et al. (6,340,411) in view of Cook et al (5,552,740) and Neogi et al. (US 2003/0208859) as applied to Claim 1 and further in view of Arifoglu et al et al. (5,103,522).

Claims 15 and 16 are rejected under 35 U.S.C. §103 (a) as being unpatentable over Hansen et al. (6,340,411) in view of Cook et al (5,552,740) and Neogi et al. (US 2003/0208859) as applied to Claim 1 and further in view of Ko et al (US 2003/0211248).

Claims 1-8 and 12-13 are provisionally rejected under the judicially created doctrine of obvious-type double patenting as being unpatentable over claims 1, 5-8, 10-12 and 16-17 of copending Application No. 10/748930 in view of Neogi et al. (US 2003/0208859) and further in view of Cook et al. (5,562,740).

The Rejection of Claims 1-4, 6-10 and 12-14 Under 35 U.S.C. §103 (a)

Claims 1-4, 6-10, and 12-14 are rejected under 35 U.S.C. §103 (a) as being unpatentable over Hansen et al. (6,340,411) in view of Cook (5,552,740) and further in view of Neogi (US 2003/0208859).

Hansen teaches a method of densifying fibers using organic and inorganic polymeric and non-polymeric densifying agents. Fibers treated with these agents are easily densified by application of pressure, column 1, lines 60-64. The densifying agents in Hansen are binders. The binder has a functional group that is capable of

forming hydrogen bonds with the fibers, and a functional group that is also capable of forming a hydrogen bond or coordinate covalent bond with particles that have a hydrogen bonding or coordinate covalent bonding functionality, column 3, lines 55-60. Hansen states that fibers that have high bulk from intrafiber covalent crosslinks are prepared by individualizing the fibers and curing them at an elevated temperature and that initial application of the binder on these fibers preferably occurs after the curing step, particularly if the binder is capable of functioning as a crosslinking material, column 34, lines 1-4. Hansen states however, that if the binders such as the polyols, polyaldehydes, polycarboxylic acids and polyamines are present during curing, the binder will be consumed during the curing step to form covalently crosslinked bonds. When this occurs, the binder is no longer available for hydrogen bonding or coordinate covalent bonding and the particle binding to particles is ineffective. Accordingly, the Hansen reference teaches away from using a polyol during the curing step because that would result in a loss of effectiveness of the binder, the very object Hansen seeks to accomplish.

The Cook reference describes a method for improving the brightness of polycarboxylic acid intrafiber crosslinked fibers. According to Cook, a pulp sheet of fibers is contacted with a polycarboxylic acid crosslinking agent, mechanically separated into substantially individual form, the individualized fibers are then dried causing the crosslinking agent to react with the fibers in the presence of a catalyst, (sodium hypophosphite), to form crosslink bonds while the fibers are maintained in substantially individual form. The crosslinked fibers are then contacted with an alkaline solution and an oxidizing agent to reduce the odor and improve brightness to 80 to 86 from 70 to 75, column 9, lines 51-62 and column 3, lines 50-52. While the Cook reference solves the problem of improving the brightness of citric acid crosslinked fibers by treating the citric acid crosslinked fibers with an alkaline solution of hydrogen peroxide, Cook does not teach or suggest the use of polyols during the crosslinking reaction to improve the Whiteness Index of bleached crosslinked fibers.

Applicants respectfully submit that the Neogi reference is not citable as a reference against the present application.

The Neogi reference has a publication date of November 13, 2003. The present application was filed March 31, 2004. Therefore, the Neogi reference is a § 102(e) reference with respect to the present application. Like the pending application, the Neogi reference is assigned to Weyerhaeuser Company. Pursuant to 35 U.S.C. § 103(c)(1), subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of Section 102, shall not preclude patentability under Section 103 where the subject matter and the claimed invention was, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. Because the Neogi reference is a § 102(e) reference (invention by another) and was assigned to Weyerhaeuser Company at the time the present invention was made, and because the present application is also assigned to Weyerhaeuser Company, pursuant to 35 U.S.C. § 103(c)(1), the Neogi reference is not available as prior art citable against the present application.

There is no motivation in the Hansen reference to arrive at the claimed invention since it teaches away from the presence of using a polyol during the curing step with a resultant loss of effectiveness of the binder, the Neogi reference is not available as prior art, and the Cook reference does not teach or suggest the use of polyols during the crosslinking reaction to improve the Whiteness Index of bleached crosslinked fibers. The claimed invention, therefore, is nonobvious. Withdrawal of the rejection is respectfully requested.

The Rejection of Claims 1-5 and 14-15 Under 35 U.S.C. §103 (a)

Claims 1-5, 14-15 are rejected under 35 U.S.C. §103 (a) as being unpatentable over Hansen et al. (6,340,411) in view of Cook et al (5,552,740) and Neogi et al. (US 2003/0208859) as applied to Claim 1 and further in view of Smith et al. (US 2002/0090511).

As stated above, there is no motivation in the Hansen reference to arrive at the claimed invention since it teaches away from the presence of using a polyol during the curing step with a resultant loss of effectiveness of the binder, the very object Hansen seeks to accomplish. The Neogi references is not available as prior art that is citable against the present application and the Cook reference does not teach the use of

polyols during the crosslinking reaction to improve the Whiteness Index of bleached crosslinked fibers.

The Smith et al. reference discloses crosslinked fibers which have been prepared by crosslinking fibers with at least one saturated dicarboxylic acid, aromatic dicarboxylic acid, cycloalkyl dicarboxylic acid, bifunctional monocarboxylic acid, or amine carboxylic acid. Smith et al. do not teach, suggest or provide any motivation to improve the Whiteness of the crosslinked fibers. Furthermore Smith et al. do not teach or suggest the use of polyols in the crosslinking reaction, bleaching the resulting crosslinked fibers and the Whiteness of the crosslinked fibers.

There is no motivation in the Hansen reference to arrive at the claimed invention since it teaches away from the presence of using a polyol during the curing step with a resultant loss of effectiveness of the binder. The Neogi references is not available as a prior art reference, the Cook reference does not teach or suggest the use of polyols during the crosslinking reaction to improve the Whiteness Index of bleached crosslinked fibers and there is no motivation or suggestion in the Smith et al. reference to combine with Cook to improve the Whiteness Index of the crosslinked fibers. The claimed invention, therefore, is nonobvious and withdrawal of the rejection is respectfully requested.

The Rejection of Claim 11 Under 35 U.S.C. §103 (a)

Claim 11 is rejected under 35 U.S.C. §103 (a) as being unpatentable over Hansen et al. (6,340,411) in view of Cook et al (5,552,740) and Neogi et al. (US 2003/0208859) as applied to Claim 1 and further in view of Arifoglu et al et al. (5,103,522).

Claim 11 is dependent from Claim 1.

There is no motivation in the Hansen reference to arrive at the claimed invention since it teaches away from the presence of using a polyol during the curing step with a resultant loss of effectiveness of the binder, the Neogi reference is not available as prior art and the Cook reference does not teach or suggest the use of polyols during the crosslinking reaction to improve the Whiteness Index of bleached crosslinked

fibers. Arifoglu adds nothing in terms of teaching, suggesting or motivating one skilled in the art to combine the reference with Cook. Arifoglu teaches sequential oxidative and reductive bleaching of natural or synthetic blends of fibers (abstract). Since the Hansen reference teaches away from the presence of using a polyol during the curing step with a resultant loss of effectiveness of the binder, the Neogi reference is not available as a prior art reference and the Cook and Arifoglu references only teach bleaching of fibers, there is no suggestion or motivation to combine the references, the claim is nonobvious. Withdrawal of the rejection is respectfully requested.

The Rejection of Claim 15 and 16 Under 35 U.S.C. §103 (a)

Claims 15 and 16 are rejected under 35 U.S.C. §103 (a) as being unpatentable over Hansen et al. (6,340,411) in view of Cook et al (5,552,740) and Neogi et al. (US 2003/0208859) as applied to Claim 1 and further in view of Ko et al (US 2003/0211248).

Claims 15 and 16 are dependent from Claim 1.

As discussed above, the Hansen reference teaches away from the presence of using a polyol during the curing step with a resultant loss of effectiveness of the binder, an undesirable result, and the Neogi reference is not available as prior art. The Cook reference fails to suggest or provide any motivation to further improve the whiteness of bleached crosslinked fibers. Ko teaches making an absorbent structure such as a fibrous web or a foam scrim and then forming a superabsorbent polymer in situ or in the substrate by addition of one or more superabsorbent polymer precursor compositions to the web and performing the polymerization reaction(s) completely on and / or in the fibrous web. The superabsorbent polymer precursor compositions are applied to the substrate and reacted at predetermined controlled locations having controlled size and spacing between them.

There is no motivation in the Hansen reference to arrive at the claimed invention since it teaches away from the presence of using a polyol during the curing step with a resultant loss of effectiveness of the binder, an undesirable result, and the Neogi reference is not available as prior art. The Cook reference does not teach or

suggest the use of polyols during the crosslinking reaction to improve the Whiteness Index of bleached crosslinked fibers. Furthermore, there is no suggestion, teaching or motivation in the Cook reference to combine with the teachings of Ko. Even if the references were combined, the instant invention would not be realized because Cook does not teach bleached crosslinked fibers made with a polyol during crosslinking and combining with Ko would not be sufficient to arrive at the claimed invention. Applicants submit therefore the claims are nonobvious and respectfully request withdrawal.

The Provisional Obviousness-Type Double Patenting Rejection

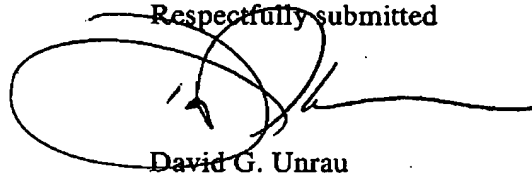
Claims 1-8 and 12-13 have been provisionally rejected under the judicially created doctrine of obviousness double patenting as being unpatentable over claims 1, 5-8, 10-12 and 16-17 of copending Application No. 10/748930 in view of Neogi et al. (US 2003/0208859) and further in view of Cook et al. US 5,562,740).

Applicants note the provisional double patenting rejection and will file a terminal disclaimer on the Examiner's indication of allowable subject matter.

CONCLUSION

Based on the foregoing, Applicants submit that the application is in condition for allowance and request that it proceed accordingly. If the Examiner has any further questions or comments the Examiner is invited to contact the Applicants' agent.

Respectfully submitted

A handwritten signature in black ink, appearing to read 'David G. Unrau', is written over the typed name. The signature is fluid and cursive, with a large loop at the beginning.

David G. Unrau

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